

STATE OF NEW JERSEY

# FARM ROAD PARK BLOCK 203 LOTS 41, 42, & 43 TOWN OF SECAUCUS HUDSON COUNTY, New Jersey

## TOWN OF SECAUCUS

**MAYOR**  
MICHAEL GONNELLI

### COUNCIL MEMBERS

JAMES J. CLANCY, SR.  
ROBERT COSTANTINO  
MARK DEHNERT  
JOHN GERBASIO  
WILLIAM MCKEEVER  
ORIENTA TRINGALI

**TOWN CLERK**  
MICHAEL MARRA

**TOWN ADMINISTRATOR**  
GARY JEFFAS, ESQ.

**TOWN ATTORNEY**  
KERI ANN EGLENTOWICZ, ESQ.

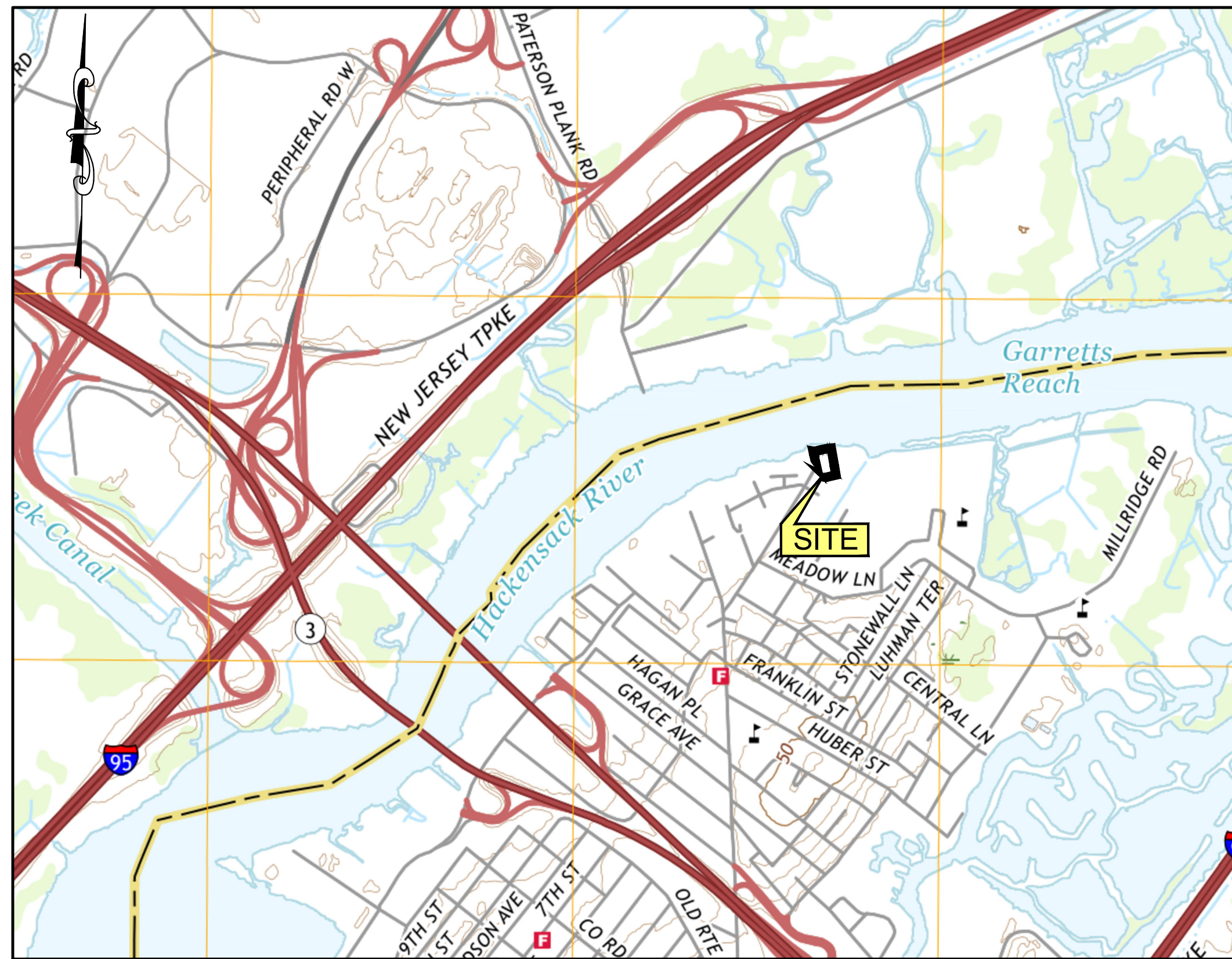
**TOWN ENGINEER**  
JENNIFER MODI, P.E.

## PUBLIC UTILITIES LIST

CABLE	COMCAST
ELECTRICITY	PUBLIC SERVICE <u>E</u> LECTRIC & GAS COMPANY
GAS	PUBLIC SERVICE ELECTRIC & <u>G</u> AS COMPANY
SEWERS	SECAUCUS MUNICIPAL UTILITIES AUTHORITY
TELEPHONE	VERIZON
WATER	SUEZ WATER OF NEW JERSEY

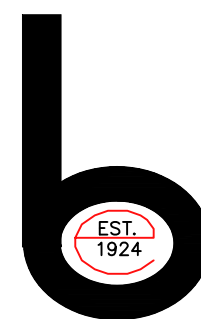
## FUNDING SOURCE

THIS PROJECT IS FUNDED BY THE TOWN OF SECAUCUS



PROJECT LOCATION MAP

1" = 1000'



**BOSWELL ENGINEERING**

330 PHILLIPS AVENUE  
SOUTH HACKENSACK, NEW JERSEY 07606  
Tel (201) 641-0770 . Fax (201) 641-1831  
NJ Certificate of Authorization No. 24GA27958000

KEVIN J. BOSWELL  
PROFESSIONAL ENGINEER N.J. LIC. 32943

JOSEPH A. POMANTE  
PROFESSIONAL ENGINEER N.J. LIC. 43137

## INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	EXISTING CONDITIONS PLANS
3	SITE PLAN
4	GRADING AND DRAINAGE PLAN
5	LIGHTING PLAN
6	LIGHTING DETAILS
7	SOIL EROSION AND SEDIMENT CONTROL PLAN
8	SOIL EROSION AND SEDIMENT CONTROL DETAILS
9	CROSS SECTION PLAN
10	DETAIL SHEET - 1
11	DETAIL SHEET - 2
12	DETAIL SHEET - 3
13	DETAIL SHEET - 4

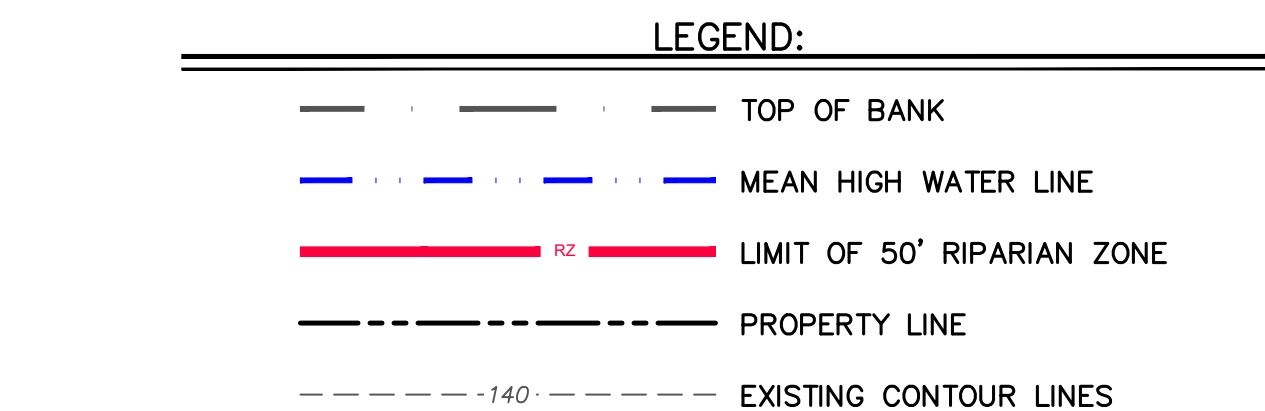
JOB NO. SEC-155

MARCH 7, 2022  
REVISED APRIL 14, 2022

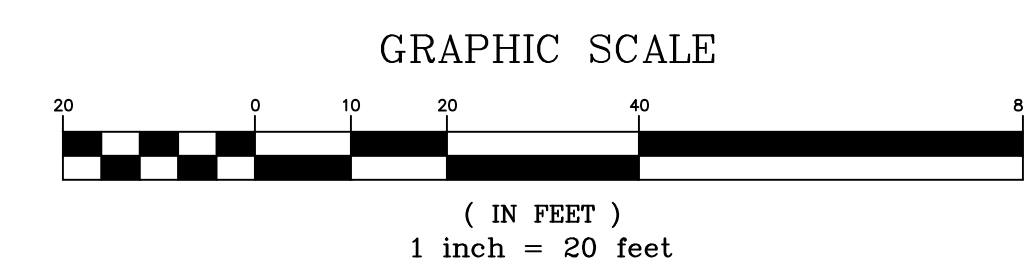

SEC-155-TS

SHEET 1 OF 13





1. BASEMAP REFERENCES SURVEY PERFORMED BY BOSWELL ENGINEERING.
2. BEARINGS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN DATUM OF 1983.
3. ELEVATIONS SHOWN HEREON ARE BASED ON NAVD 1988. REFERENCE MONUMENT: L 62 (PID KV0462)..TO CONVERT FROM NAVD 88 TO NGVD 29, ADD 1.056 FEET.
4. UNDERGROUND UTILITIES IF DEPICTED ARE BASED ON VISIBLE EVIDENCE. THE LACK OF UTILITY INFORMATION DOES NOT DENY THE EXISTENCE OF SAME. REFERENCE TO THE APPROPRIATE UTILITY AUTHORITY SHOULD BE MADE TO DETERMINE THE PRESENCE OR ABSENCE OF UTILITIES PRIOR TO ANY EXCAVATION.
5. THE TIDELANDS CLAIM LINE IS BASED UPON NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA, BUT THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED BY NUDEP AND IS NOT STATE AUTHORIZED.
6. PRESENT MEAN HIGH WATER LINE IS BASED UPON MEADOWLANDS ENVIRONMENTAL RESEARCH INSTITUTE TIDE GAUGE STATION 9 (MILL CREEK) DATA. MEAN HIGH WATER LINE IS AT ELEVATION 2.86
7. THE ENTIRETY OF THE PROPERTY IS WITHIN THE FLOOD HAZARD AREA OF THE HICKENSACK RIVER, AS PER FEMA FIRM PANEL 266 OF 332, MAP NUMBER 34003C0266H.
8. THE ENTIRETY OF THE PROJECT FALLS WITHIN THE 500' WATERFRONT DEVELOPMENT AREA.

[illegible]

**BOSWELL ENGINEERING**

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ENGINEERS – SURVEYORS – PLANNERS – SCIENTISTS

330 PHILLIPS AVENUE, SOUTH HACKENSACK, N.J. 07606

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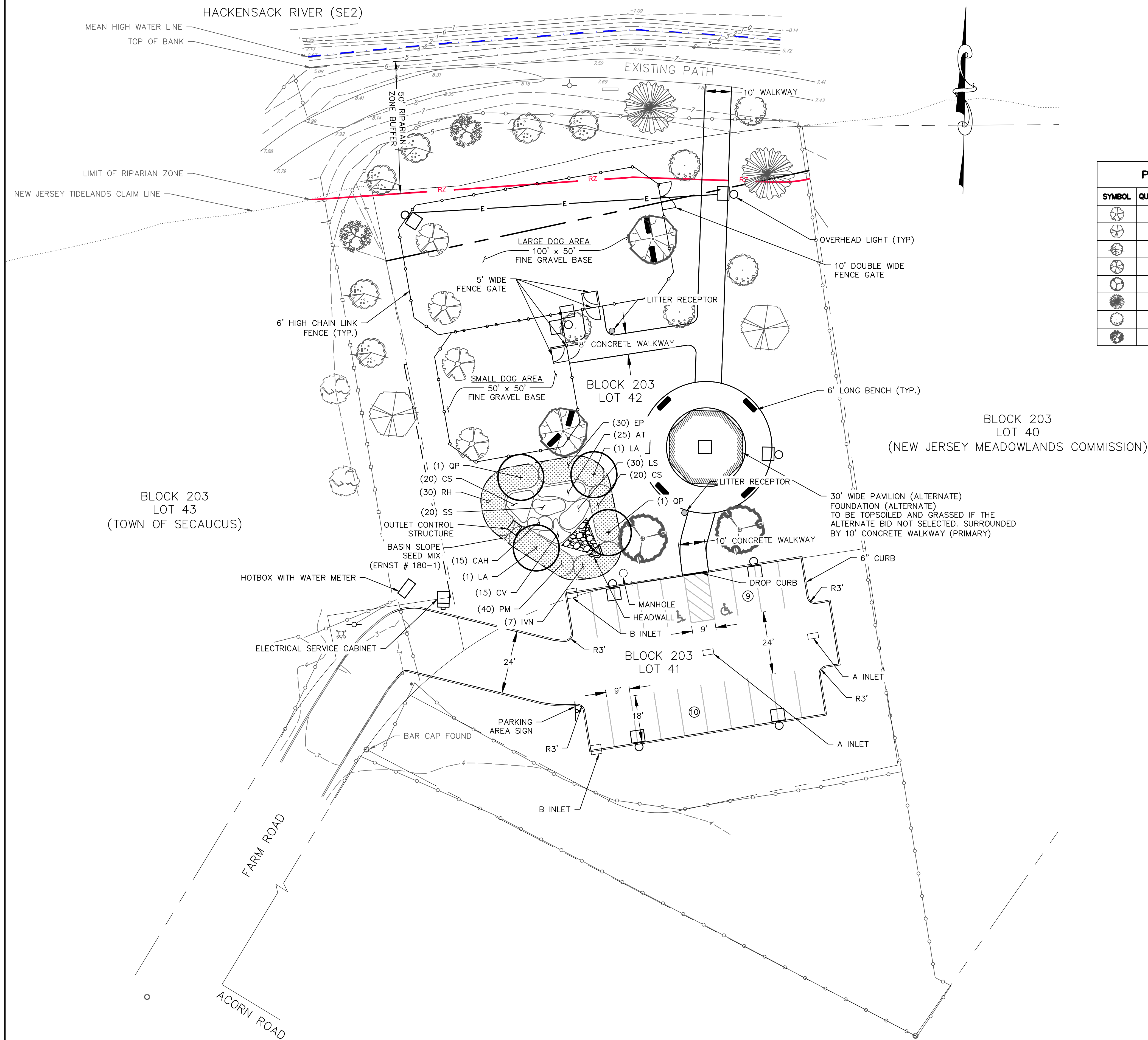
N.J. CERTIFICATE OF AUTHORIZATION No. 24GA27958000

PROFESSIONAL ENGINEER N.J. LIC. 32943

PROFESSIONAL ENGINEER N.J. LIC. 43137

HUDSON COUNTY			NEW JERSEY	
SURVEYED BY: --- DRAWN BY: S.J.	DESIGNED BY: S.J. CHECKED BY: F.J.R.	SCALE: 1" = 20'	JOB NO. SEC-155	DATE: 3/07/22
CADD FILE: SEC-155-ES.DWG		SHEET 2 OF 13		





LEGEND:	
---	TOP OF BANK
---	MEAN HIGH WATER LINE
---	LIMIT OF 50' RIPARIAN ZONE
---	PROPERTY LINE
---	FENCE

PLANTING SCHEDULE			
SYMBOL	QUANTITY	COMMON NAME	SIZE
⊗	4	EASTERN REDBUD	2.5-3" CALIPER
⊗	2	OCTOBER GLORY RED MAPLE	3-3.5" CALIPER
⊗	6	PINK DOGWOOD	2.5-3" CALIPER
⊗	2	RIVER BIRCH	3-3.5" CALIPER
⊗	2	WEeping WILLOW	3-3.5" CALIPER
⊗	5	WHITE DOGWOOD	2.5-3" CALIPER
⊗	2	WINTER KING HAWTHORNE	2.5-3" CALIPER

BIORETENTION BASIN PLANTINGS				
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
LA	2	Liquidambar styraciflua	SWEETGUM	2.5-3" CALIPER
QP	2	Quercus phellos	WILLOW OAK	2.5-3" CALIPER
CAH	15	Clethra alnifolia 'Hummingbird'	HUMMINGBIRD SUMMERSWEET	24"-30" HT.
CS	40	Cornus sericea 'Keiseyi'	DWARF RED-OSIER DOGWOOD	24"-30" HT.
IVN	7	Ilex verticillata 'Nana'	RED SPRITE WINTERBERRY HOLLY	24"-30" HT.
AT	25	Asclepias tuberosa	BUTTERFLY MILKWEED	1 GAL.
EP	30	Echinacea purpurea	PURPLE CONEFLOWER	1 GAL.
LS	30	Liatris spicata	DENSE BLAZING STAR	1 GAL.
PM	40	Pycnanthemum muticum	MOUNTAIN MINT	1 GAL.
RH	30	Rudbeckia hirta	BLACKEYED SUSAN	1 GAL.
CV	15	Carex vulpinoidea	FOX SEDGE	1 GAL.
SS	20	Schizachyrium scoparium	LITTLE BLUESTEM	1 GAL.

#### PRINCIPAL BID

ITEM	TO BE CONSTRUCTED	UNIT	QUANTITY
5	CLEAN FILL	C.Y.	2,730
6	6' TALL FENCE	L.F.	430
7	6' HIGH, 5' WIDE FENCE GATE	UNIT	4
8	DOG PARK GRAVEL BASE	S.Y.	810
9	WALKWAYS	S.Y.	430
10	ASPHALT AREA (DRIVEWAY AND PARKING LOT)	S.Y.	820
11	CONCRETE CURB	L.F.	460
12	PARKING STRIPING AND MARKINGS	L.S.	--
20	BIORETENTION BASIN	L.S.	--
22	BENCHES	UNIT	8
24	ADA SIGNS	UNIT	2
25	SCREENED TOPSOIL, 5" THICK	C.Y.	600
26	PLANTINGS	L.S.	--
27	SEED AND FERTILIZER	S.Y.	4,170
28	DEMARCATON LAYER	S.Y.	5,000
29	PARKING AREA SIGN	UNIT	1
30	LITTER RECEPTOR	UNIT	2
31	6' HIGH, 10' WIDE FENCE GATE	UNIT	1

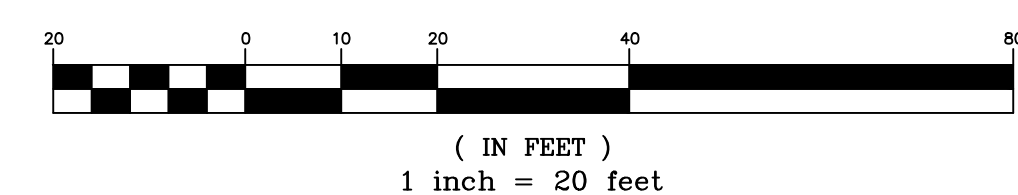
#### ALTERNATE BID

ITEM	TO BE CONSTRUCTED	UNIT	QUANTITY
32	30' PAVILION	L.S.	L.S.
33	PAVILION FOUNDATION	S.F.	707


#### PLAN NOTES:

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- THE ENTIRETY OF THE PROPERTY IS WITHIN THE FLOOD HAZARD AREA OF THE HACKENSACK RIVER, AS PER FEMA FIRM PANEL 266 OF 332, MAP NUMBER 34003C0266H.
- THE ENTIRETY OF THE PROJECT FALLS WITHIN THE 500' WATERFRONT DEVELOPMENT AREA.
- BASIN SLOPE SEED MIX REFERS TO ERNMX-180-1.
- THE PAVILION SELECTED IS BASED ON THE '30' CEDAR OCTAGON GAZEBO' BY 'GAZEBOCREATIONS.COM' (ITEM # [COG3000]) IN RED CEDAR, WITH A SINGLE ROOF, 30' SIZE, OCTAGON SHAPE, AND NO DECK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PURCHASE AND CONSTRUCT THE SPECIFIED PAVILION. THE PAVILION WILL BE SECURED TO A CONCRETE SLAB AS SPECIFIED IN THE CONTRACT DRAWINGS. THE PAVILION WILL BE SECURED AS PER MANUFACTURERS SPECIFICATIONS. IF THE ALTERNATE BID IS NOT SELECTED, THE AREA IT TO BE TOPSOILED AND SEEDED WITH GRASS.

#### GRAPHIC SCALE



NO.	DATE	DESCRIPTION	SURVEYED BY	DRAWN BY	DESIGNED BY	CHECKED BY
1	4/14/22	REVISED FOR BID	SJ	SJ	FJR	

**BOSWELL ENGINEERING**  
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N.J. CERTIFICATE OF AUTHORIZATION No. 24GA2958000

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JOSEPH A. POMANTE

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FARM ROAD PARK  
BLOCK 203 LOTS 41, 42, & 43  
SITE PLAN  
TOWN OF SECAUCUS

HUDSON COUNTY		NEW JERSEY	
SURVEYED BY: S.J.	DESIGNED BY: S.J.	SCALE: 1" = 20'	JOB NO. SEC-155
DRAWN BY: S.J.	CHECKED BY: F.J.R.		DATE: 3/07/22
CADD FILE: SEC-155-CP.DWG		SHEET 3 OF 13	



FARM ROAD PARK BLOCK 203 LOTS 41, 42, & 43 GRADING AND DRAINAGE PLAN TOWN OF SECAUCUS			
HUDSON COUNTY		NEW JERSEY	
SURVEYED BY: --- DRAWN BY: S.J.	DESIGNED BY: S.J. CHECKED BY: F.J.R.	SCALE: 1" = 20'	JOB NO. SEC-155
CADD FILE: SEC-155-GDP.DWG		DATE: 3/07/22	
		SHEET 4 of 13	







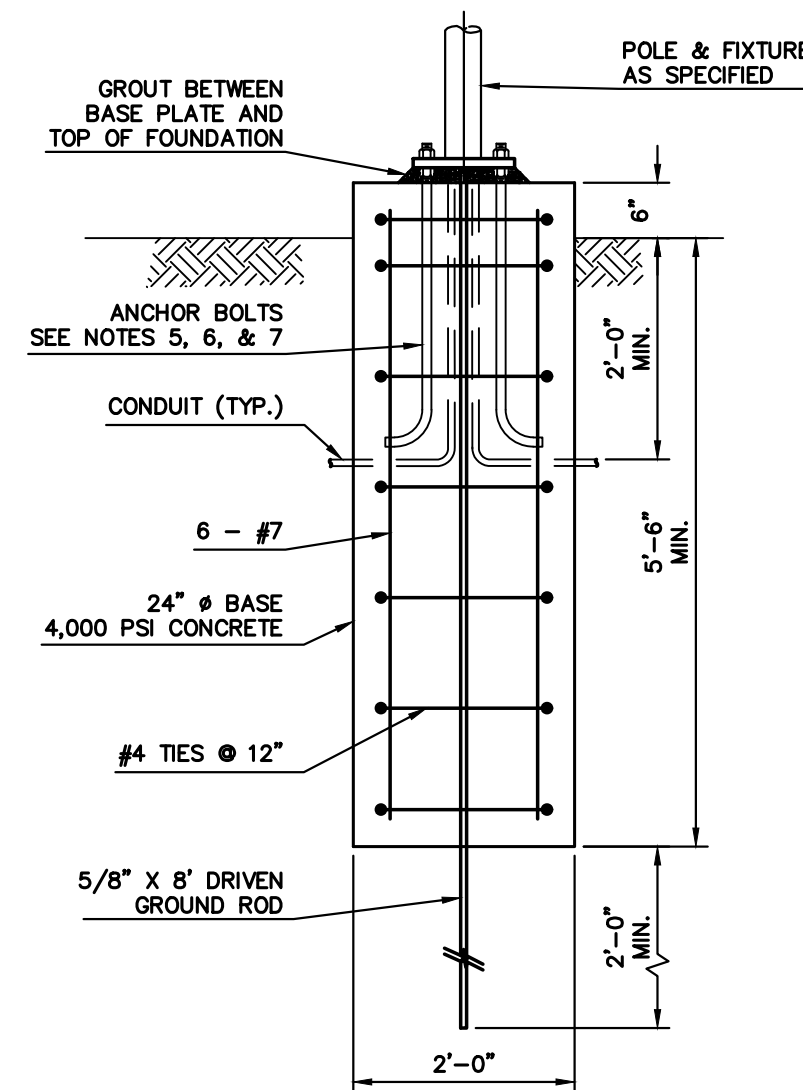
VOLTS: 120/240  
 PHASE, WIRE: 1 $\phi$ , 3W  
 KAIC RATING: 10K  
 MAIN LUG: 100A

KVA	AMPS
PHASE A: <u>0.63</u>	PHASE A: <u>5.25</u>
PHASE B: <u>1.50</u>	PHASE B: <u>12.50</u>
TOTAL: <u>2.13</u>	

NEMA RATING: 1  
 BUS MATERIAL: TIN PLAT  
 BUS AMP RATING: 100A  
 PER PHASE FEEDER SIZE: #3  
 NEUTRAL SIZE: #3

1  
TIN PLATED ALUMINUM  
100A  
#3  
#3

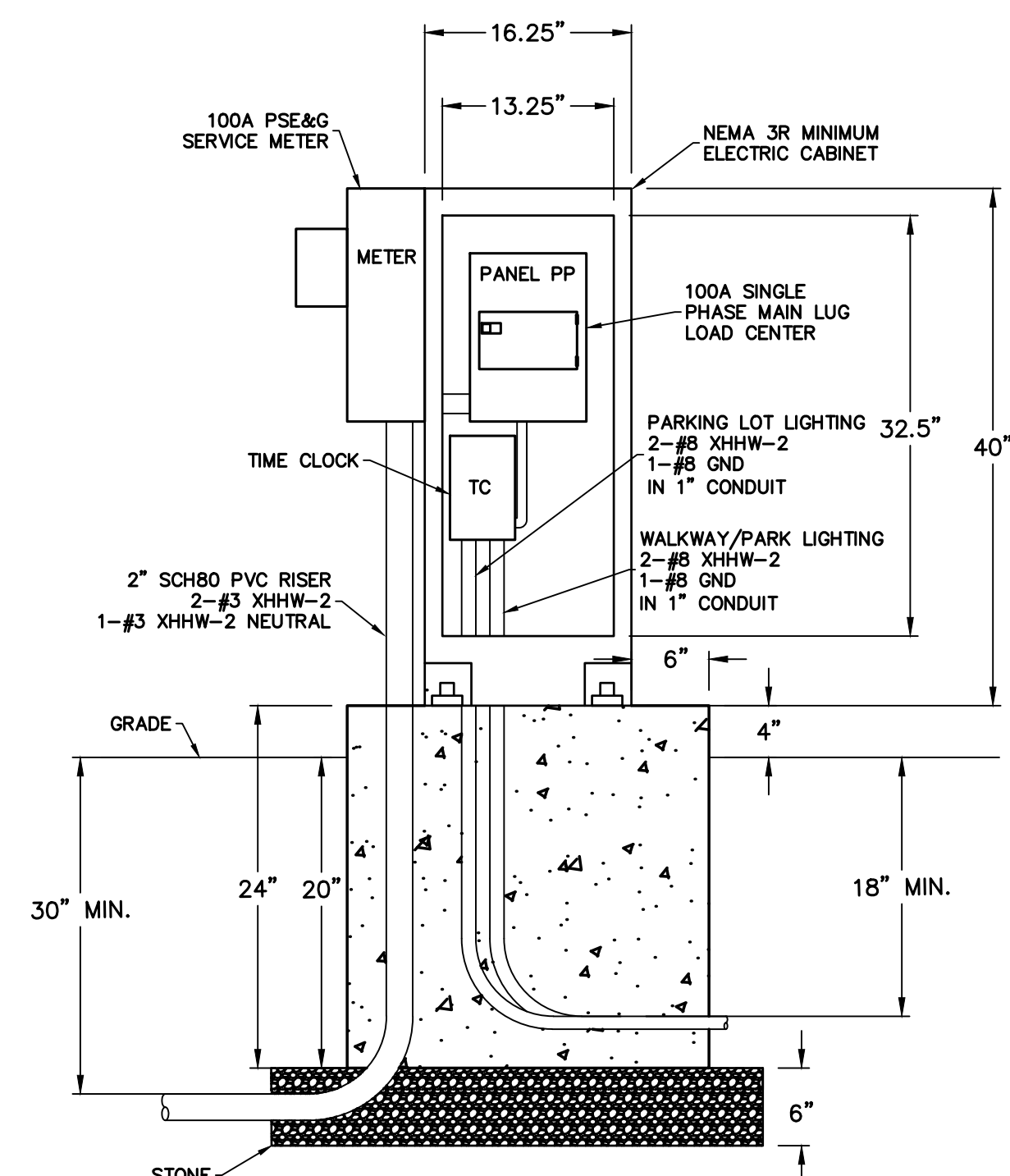
POWER PANEL: PP														
				KW PER $\phi$										
CKT	TRIP	POLE	WIRE	LOAD DESCRIPTION	AMPS	$\phi$ A	$\phi$ B	AMPS	LOAD DESCRIPTION	WIRE	POLE	TRIP	CKT	
1	20	1	#8	PARKING LOT LIGHTS	2.33	0.63		2.92	WALKWAY/PARK LIGHTS	#8	1	20	2	
3	20	1	#10	WATER METER HEATER	12.5		1.50	—	—SPARE—	—	1	20	4	
5	20	1	—	—SPARE—	—	—		—	—SPARE—	—	1	20	6	



LIGHT FOUNDATION  
SCALE: N.T.S.

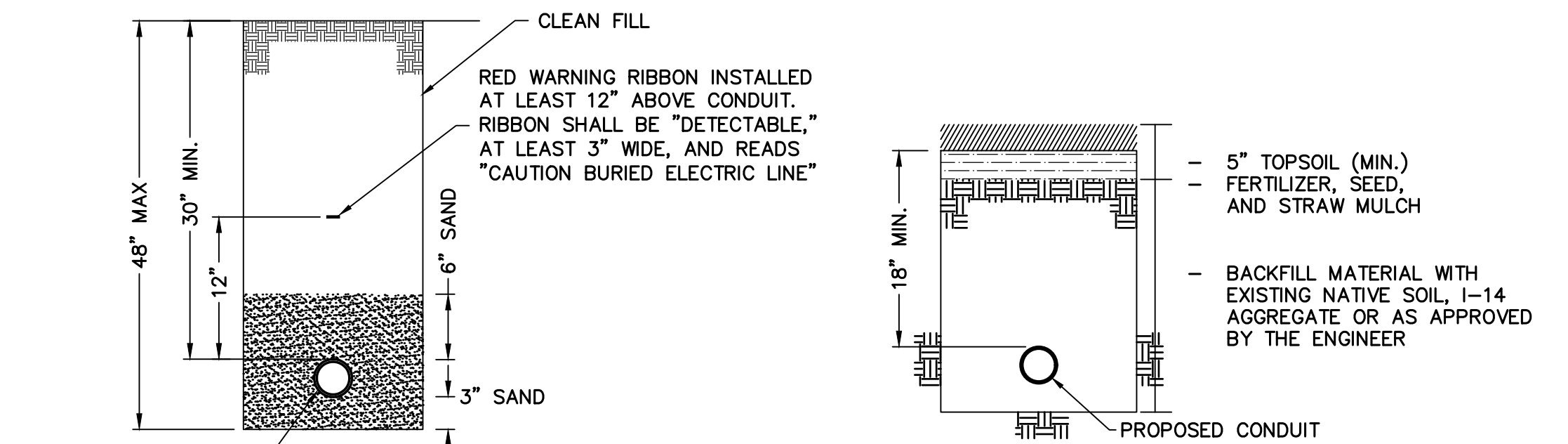
NOTES:

- NOTES:**
- THE LIGHT FOUNDATION HAS BEEN DESIGNED USING THE FOLLOWING PARAMETERS:
- A. THE LIGHT POLE AND FIXTURE ARE CATEGORY 2 STRUCTURES AS PER IBC.
- B. MAXIMUM 3-SECOND GUST WIND SPEED IS 115 MPH AS PER IBC.
- C. THE LIGHT POLE IS ALUMINUM WITH A MAXIMUM 6" DIAMETER AND A MAXIMUM OF 25'.
- D. THE LIGHT POLE WILL SUPPORT A MAXIMUM OF 2 FIXTURES, EACH WITH A MAXIMUM WEIGHT, INCLUDING SUPPORTS AND ACCESSORIES, 25 POUNDS AND A MAXIMUM PROTECTIVE PROJECTED AREA 5TH SH-3.0 SQUARE FEET. EACH FIXTURE WILL BE SET A MAXIMUM OF 2' FROM THE CENTERLINE OF THE LIGHT POLE.
2. ALL ALUMINUM THAT SHALL BE IN CONTACT WITH STEEL OR CONCRETE SHALL HAVE A HEAVY COAT OF ALUMINUM PIGMENTED ALKALINE RESISTANT BITUMINOUS PAINT EQUAL TO FEDERAL SPECIFICATIONS TT-C-498C. PAINT SHALL BE APPLIED CAREFULLY AS NOT BE SHOWN ON ANY SURFACE VISIBILITY WHEN THE PROJECT IS COMPLETE.
3. THE CONTRACTOR SHALL VERIFY MINIMUM SOIL PARAMETERS.
- SOIL SHALL BE SC8 TABLE 1804.2 CLASS 4 SOIL WITH A MINIMUM LATERAL RESISTANCE OF 150 PSF/FT.
4. MINIMUM COVER FOR ALL REINFORCING STEEL SHALL BE 3 INCHES.
5. ANCHOR BOLTS SHALL CONFORM TO ASTM F-593, STAINLESS STEEL TYPE 316, ANCHOR BOLT DIAMETER AND EMBEDMENT DEPTH SHALL AS RECOMMENDED BY THE LIGHT POLE MANUFACTURER. EMBEDMENT DEPTH SHALL BE A MINIMUM OF 18 TIMES THE ANCHOR BOLT DIAMETER.
6. ANCHOR BOLTS SHALL PROTRUDE A MINIMUM OF 4 BOLT DIAMETERS ABOVE BASE IF BASE IS LEVEL.
7. CONTRACTOR TO MATCH BOLT PATTERN AS REQUIRED FOR LIGHT ASSEMBLIES, ANCHOR BOLT CIRCLE PATTERN SHALL BE PROVIDED BY MANUFACTURER, ANCHOR BOLTS SHALL BE PROVIDED BY CONTRACTOR.
8. CONTRACTOR SHALL DUCT FILL CONDUIT ENDS AND USE SILICONE FILLED WIRE NUTS TO PREVENT WATER DAMAGE TO CONDUITS AND WIRE SPICES



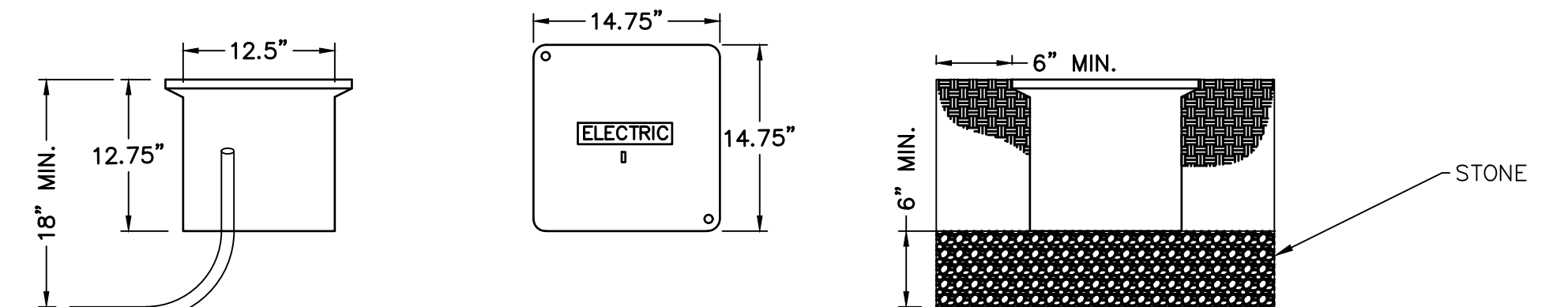
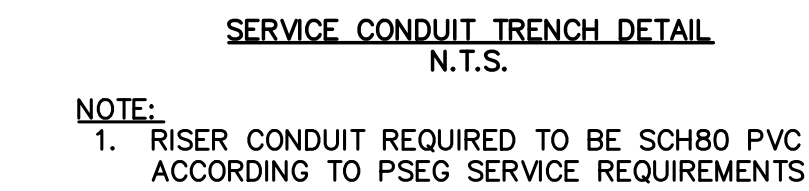
ELECTRIC CABINET DETAIL  
N.T.S.

1. CONTRACTOR SHALL COORDINATE WITH PSE&G WIRING INSPECTOR FOR FINAL INSTALLATION LOCATION OF METER.
2. CONTRACTOR SHALL FURNISH AND INSTALL A MINIMUM NEMA 3R RATED ELECTRIC CABINET TO CONTAIN A 100A LOAD CENTER AND PROVIDE A MOUNTING STRUCTURE FOR THE PSE&G SERVICE METER.
3. THE CONTRACTOR SHALL VERIFY WITH THE OWNER REGARDING TIME CLOCK HOURS OF OPERATION.
4. CONTRACTOR SHALL FOLLOW MANUFACTURER PROVIDED BOLT PATTERN. DETAIL IS BASED ON APX TCP4601615 PEDESTAL CABINET.



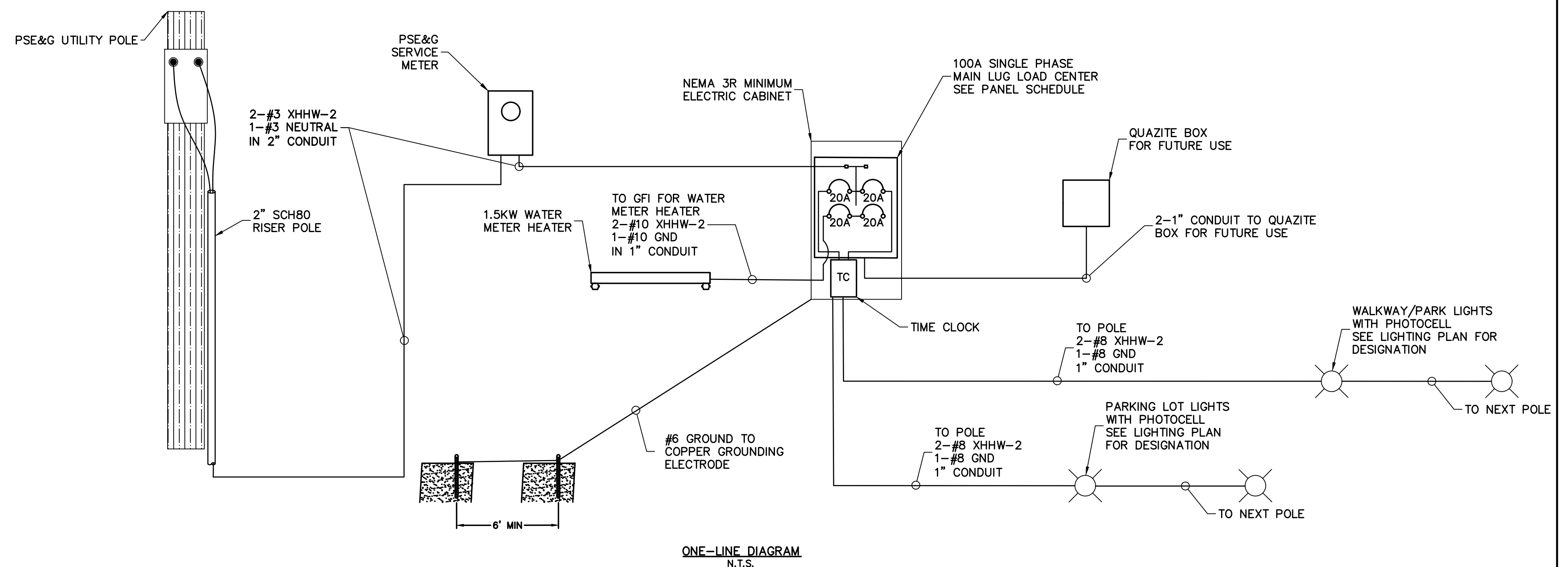
ELECTRICAL CONDUIT TRENCH (LAWN RESTORATION) DETAIL  
N.T.S.

- NOTE:
1. AREAS WHERE FINISHED GRADE IS SIDEWALK SHALL FOLLOW SIDEWALK DETAIL AS SHOWN IN STRUCTURAL DETAILS.



QUAZITE BOX  
N.T.S.

- NOTE:**
1. QUAZITE BOX TO BE CONSTRUCTED OF POLYMER CONCRETE. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
  2. BOX LID TO BE LEGIBLY MARKED "ELECTRIC"
  3. LID TO BE OF SAME CONSTRUCTION AS BOX AND SHALL COME WITH 2 STAINLESS STEEL 3/8"-16" X 1-1/2" HEX HEAD BOLTS.
  4. CONTRACTOR SHALL FILL BOTTOM OF EXCAVATION WITH 6" OF SAND PRIOR TO SETTING QUAZITE BOX.



ONE-LINE DIAGRAM  
N.T.S.

- NOTES:

1. REFER TO LIGHTING PLAN FOR CONDUIT & LIGHT FIXTURE DESIGNATION.
2. TIME CLOCK IS TO BE CONNECTED IN SERIES WITH INDIVIDUAL PHOTOCELLS. ON/OFF TIMES TO BE DETERMINED BY OWNER.

[illegible]

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KENNETH H. POST

PROFESSIONAL ENGINEER N.J. LIC. 42486

FARM ROAD PARK  
BLOCK 203 LOTS 41, 42, & 43  
LIGHTING DETAILS  
TOWN OF SECAUCUS

HUDSON COUNTY

NEW JERSEY |

SURVEYED BY:--

DESIGNED BY:S.J.

SCALE:	J
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OB NO.	DATE:
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DRAWN BY: S.J.

CHECKED BY: F.J.R.

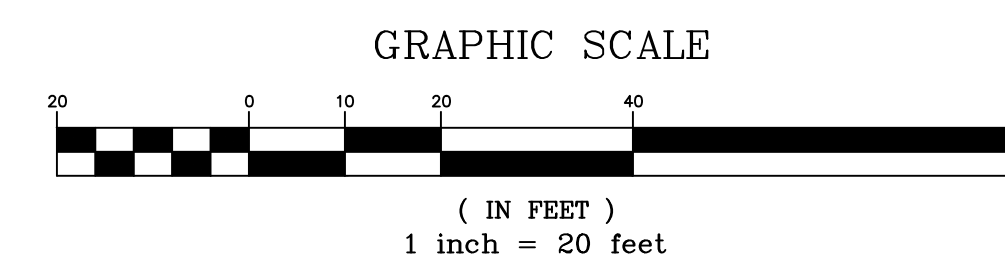
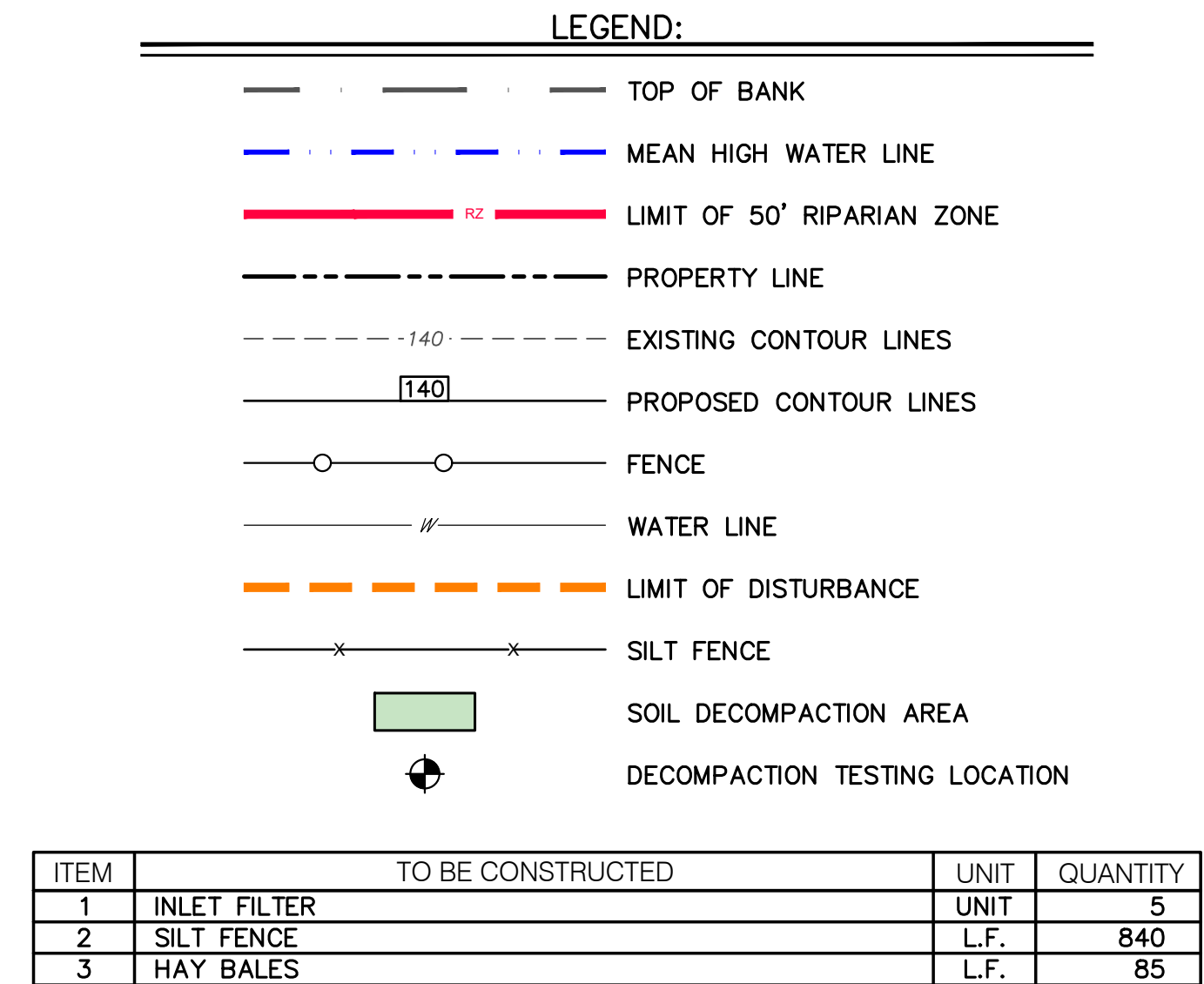
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6 OF 13





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CADD FILE: SEC-155-SESC.DWG SHEET 7 OF 13



3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, WILL BE TEMPORARILY SEEDED AND HAY MULCHED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
3. SEEDING DATES: THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD: SPRING – 3/1 TO 5/15 AND FALL – 8/15 TO 10/01.
4. SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAIN UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
6. MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70-90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING THE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
7. ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
8. THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX – (862) 333-4507, EMAIL – INFORMATION@HEPSCD.ORG.
9. THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY, NJ-DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-4505 TO REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO-SEED.
10. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNATED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.
11. ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE-SEEDING, SODDING OR PLANTING. A DEPTH OF 5.0 INCHES, FIRMED IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, LAST REVISED DECEMBER, 2017.
12. ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.

## SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE COMPACTION REMEDIATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

## COMPACTION TESTING METHODS

- A. PROBING WIRE TEST (SEE DETAIL)
- B. HAND-HELD PENETROMETER TEST (SEE DETAIL)
- C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
- D. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

## PROCEDURES FOR SOIL COMPACTION MITIGATION

PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

DEFINITION:  
ESTABLISHMENT OF PERMANENT VEGETATIVE COVER ON EXPOSED SOILS WHERE PERENNIAL VEGETATION IS NEEDED FOR LONG TERM PROTECTION.  
PURPOSE:  
TO PERMANENTLY STABILIZE THE SOIL ASSURING CONSERVATION OF SOIL AND WATER, AND TO ENHANCE THE ENVIRONMENT.  
WHERE APPLICABLE:  
ON EXPOSED SOILS THAT HAVE THE POTENTIAL FOR CAUSING OFFSITE ENVIRONMENTAL DAMAGE.

**METHODS AND MATERIALS:**

1. SITE PREPARATION:
  - A. GRADE AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, P. 4. 11.
  - B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS AND WATERWAYS. SEE STANDARDS 4.2 THROUGH 4.16.
2. SEEDED PREPARATION:
  - A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING (SEE PAGE 3.2, SECTION IV).
  - B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE TEXTURED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDED WHEREVER FEASIBLE.
  - C. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOFS, AND PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
  - D. ROLL SEEDED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE REFILLED AND FIRMED AS ABOVE.
  - E. AID SOIL CONDITIONS: SOILS HAVING A pH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A pH OF 5 OR MORE BEFORE SEEDED PREPARATION. THE ADDED SOIL SHALL BE LIMED AS ABOVE.
3. SEEDING
  - A. COOL SEASON MIXTURE IS TO BE SELECTED. PLEASE REFER TO THE PLANTING PLAN.
4. MULCHING
  - A. MULCHING IS REQUIRED ON ALL SEEDED. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF SATISFACTORY PERMANENT VEGETATION AT THE TIME OF PROJECT OR UNIT COMPLETION WILL BE DEEMED AS REQUIREMENT.
  - B. MULCH MATERIALS -- REFER TO TEMPORARY VEGETATIVE COVER STANDARDS.
  - C. SPREAD UNIFORMLY -- REFER TO TEMPORARY VEGETATIVE COVER STANDARDS.
  - D. MULCH ANCHORING -- REFER TO TEMPORARY VEGETATIVE COVER STANDARDS.
  - E. WOOD-FIBER OR PAPER -- REFER TO TEMPORARY VEGETATIVE COVER STANDARDS.
5. IRRIGATION (WHERE FEASIBLE)
  - A. IF SOIL MOISTURE IS DEFICIENT, AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH, TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.
6. TOPDRESSING
  - A. ALL NEW SEEDINGS WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.
  - B. FALL SEEDINGS WILL REQUIRE THE ABOVE BETWEEN MARCH 15 AND MAY 1.
  - C. MIXTURES DOMINATED BY WEEPING LOVEGRASS OR LEGUMES MAY NOT NEED TOPDRESSING.
  - D. BERMUDAGRASS SHOULD BE TOPDRESSED BETWEEN AUGUST 15 AND SEPTEMBER 15.
  - E. IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THIS FOLLOW-UP OF TOPDRESSING IS NOT MANDATORY.

SHOULD DUST CONTROL BE A PROBLEM PRIOR TO PERMANENT SOIL STABILIZATION, ANY OF THE FOLLOWING MEASURES SHOULD BE UTILIZED:

1. APPLY MULCH
2. APPLY SPRAY ON ADHESIVES


	<u>WATER DILUTION</u>	<u>TYPE OF NOZZLE</u>	<u>APPLY GALLONS/ACRE</u>
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	121/2:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

3. KEEP DISTURBED SOILS MOIST BY PERIODIC WATER SPRAYING
4. CALCIUM CHLORIDE SHALL BE IN THE FORM OF LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.



PROBING WIRE TEST- 15.5 GA STEEL WIRE (SURVEY FLAG)

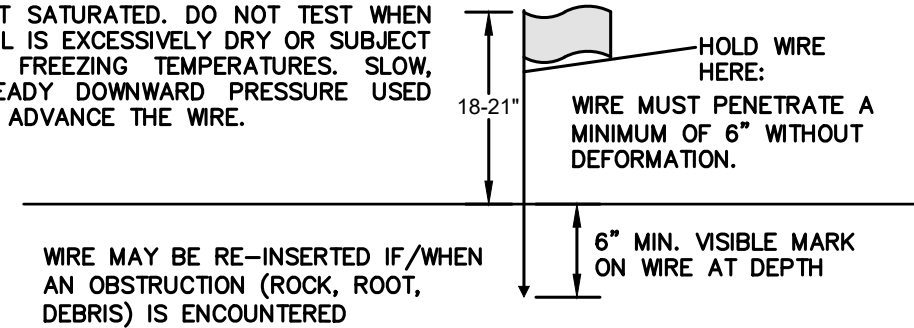
NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.



18-21"

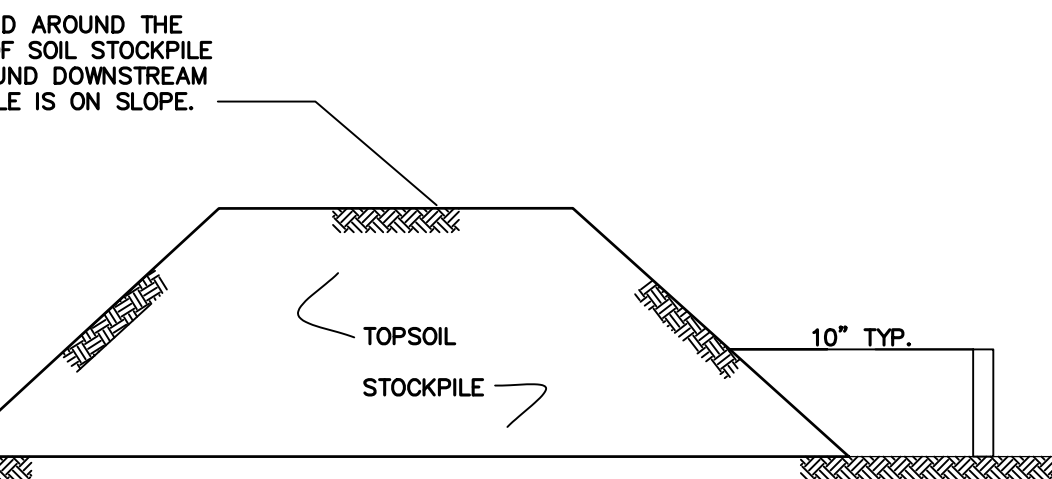
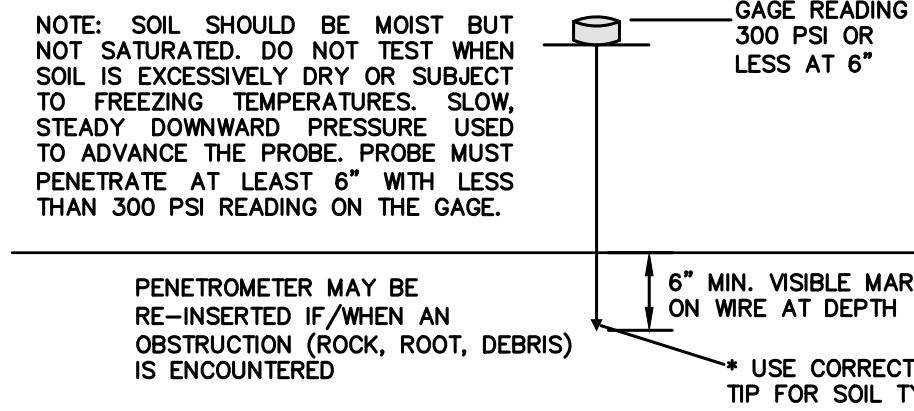
HOLD WIRE  
HERE:

WIRE MUST PENETRATE A  
MINIMUM OF 6" WITHOUT



### HANDHELD SOIL PENETROMETER TEST

NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED, DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. PROBE MUST PENETRATE AT LEAST 6" WITH LESS THAN 300 PSI READING ON THE GAGE.



N.T.S.

NOTES:

1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE TOPSOIL STOCKPILE AND OFF-SITE PROPERTY.
2. REFERENCE IS MADE TO THE HAY BALES DETAIL FOR MATERIALS AND INSTALLATION METHODS.
3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDS WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION. ACID PRODUCING SOILS SHALL BE COVERED WITH POLYETHYLENE SHEETING.
4. INSPECTION OF HAY BALES SHOULD BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. SEDIMENT TRAPPED BY THE BALES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
6. HAY BALES SHALL BE MAINTAINED IN PLACE UNTIL TOPSOIL STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN THE PROJECT IS COMPLETED.

## IMPLEMENTATION OF SOIL EROSION AND SEDIMENT CONTROL MEASURES

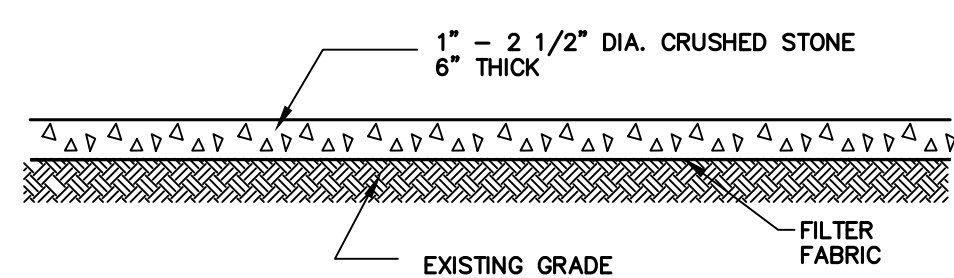
IMPORT FILL AND CONSTRUCT SUBSURFACE DRAINAGE AND UTILITY LINES	3 WEEKS
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CONSTRUCT PARKING AREA, WALKWAYS, AND ENCLOSED DOG AREAS	8 WEEKS
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## FINAL GRADING

APPLY 3" OF TOPSOIL AND ESTABLISH  
FINAL VEGETATIVE COVER

REMOVE SOIL EROSION MEASURES	1 WEEK
	<hr/> 16 WEEKS



N.T.S.

PROFESSIONAL ENGINEER N.J. LIC. 32943

PROFESSIONAL ENGINEER N.J. LIC. 43137

FARM ROAD PARK  
BLOCK 203 LOTS 41, 42, & 43  
SOIL EROSION AND SEDIMENT CONTROL DETAILS  
TOWN OF SECAUCUS

HUDSON COUNTY NEW JERSEY

SURVEYED BY:--	DESIGNED BY:S.J.	SCALE:	JOB NO.	DATE:
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DRAWN BY: S.J.	CHECKED BY: F.J.R.	N.T.S.	SEC-155	3/07/22
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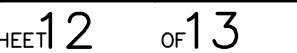


FARM ROAD PARK BLOCK 203 LOTS 41, 42, & 43 DETAIL SHEET — 1 TOWN OF SECAUCUS				
HUDSON COUNTY			NEW JERSEY	
SURVEYED BY: — DRAWN BY: S.J.	DESIGNED BY: S.J. CHECKED BY: F.J.R.	SCALE: N.T.S.	JOB NO. SEC—155	DATE: 3/07/22
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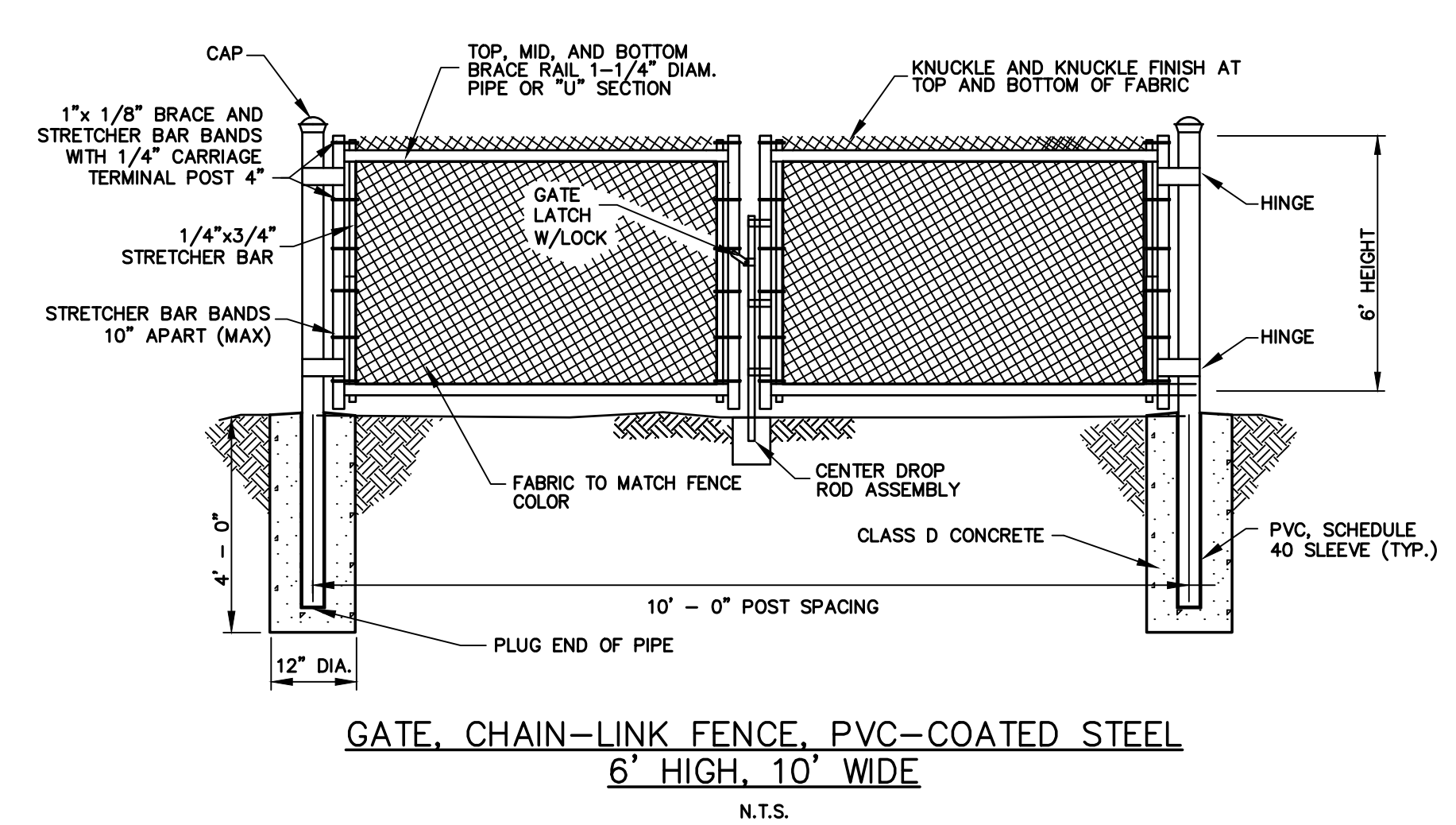
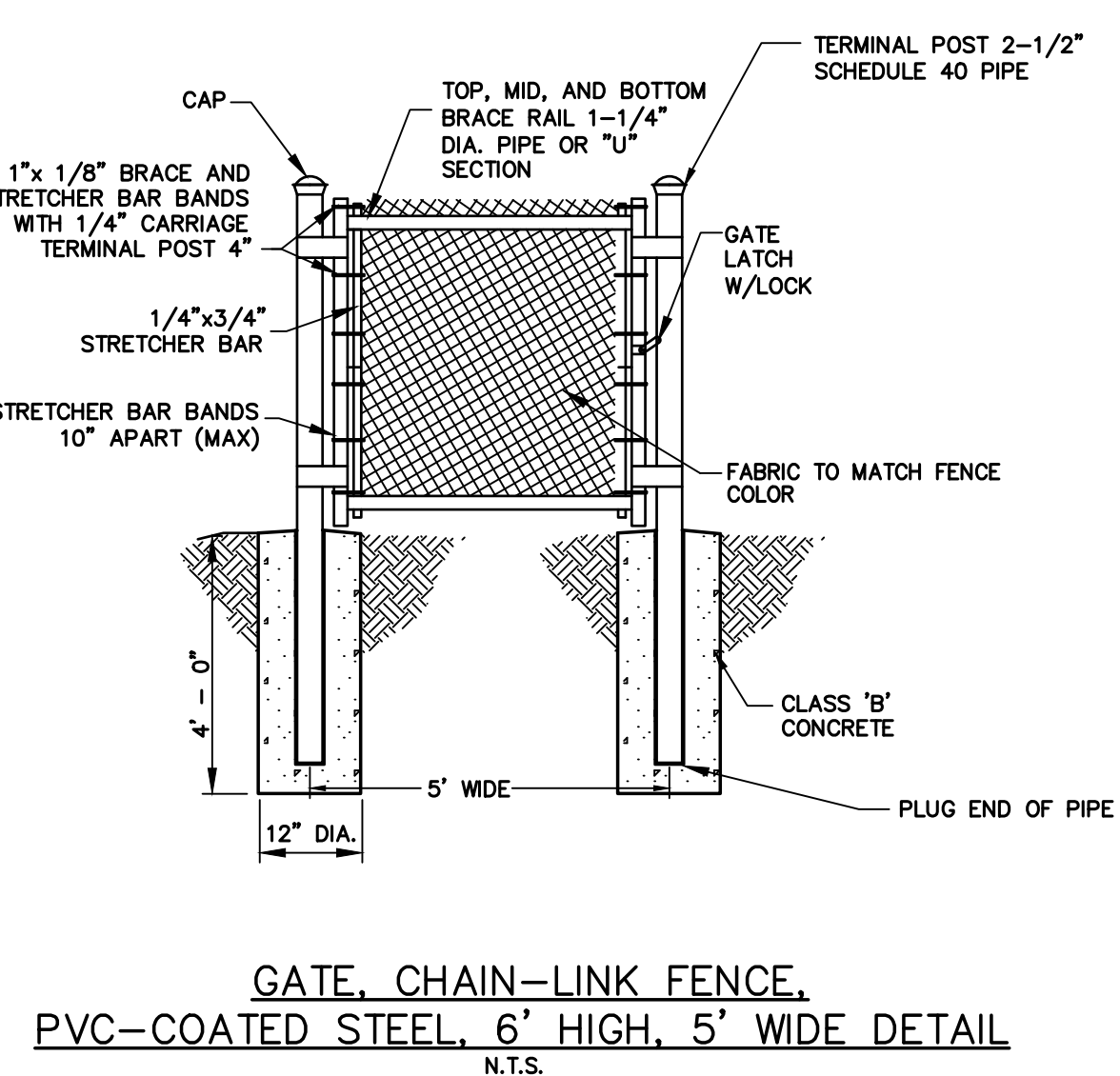
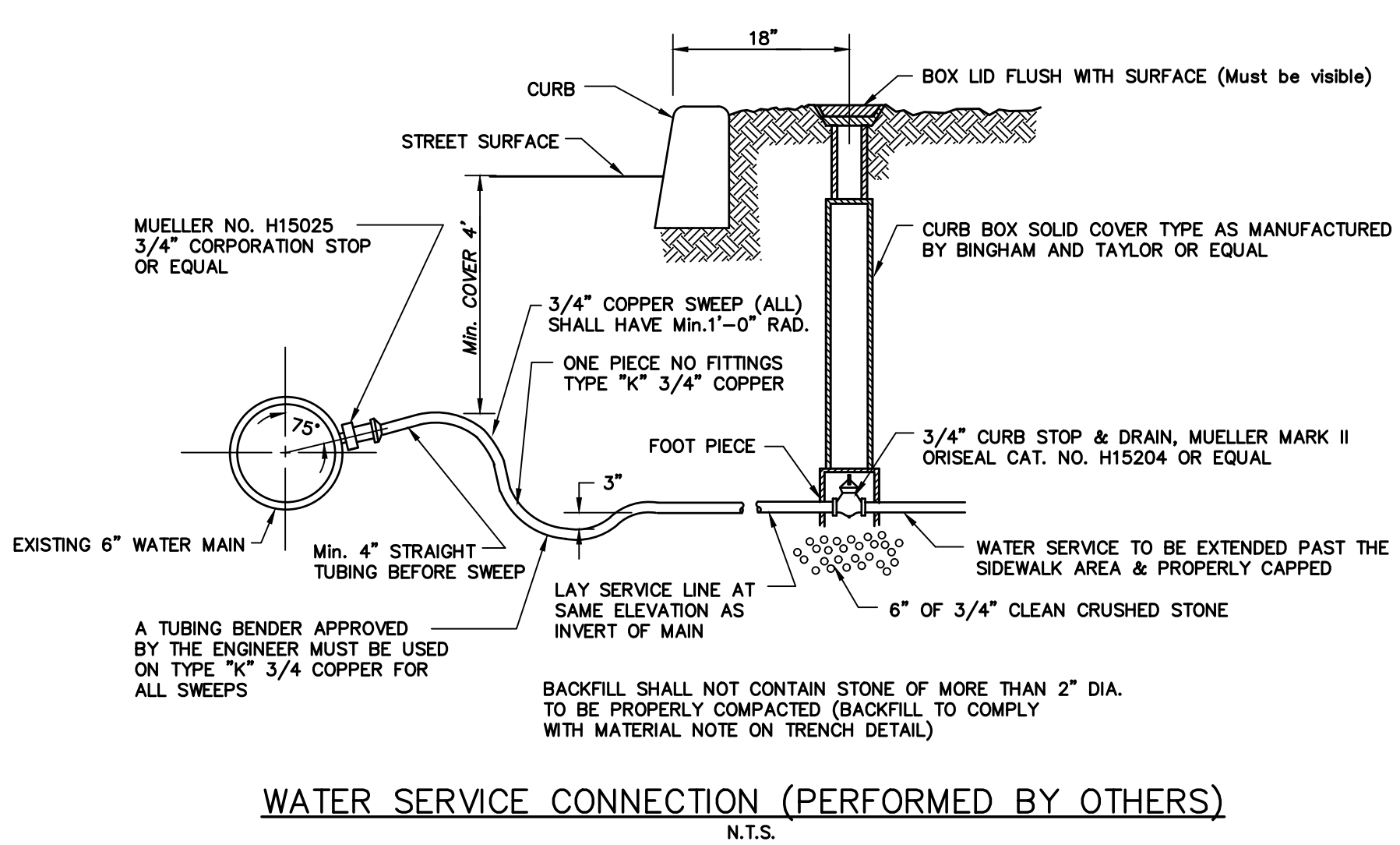
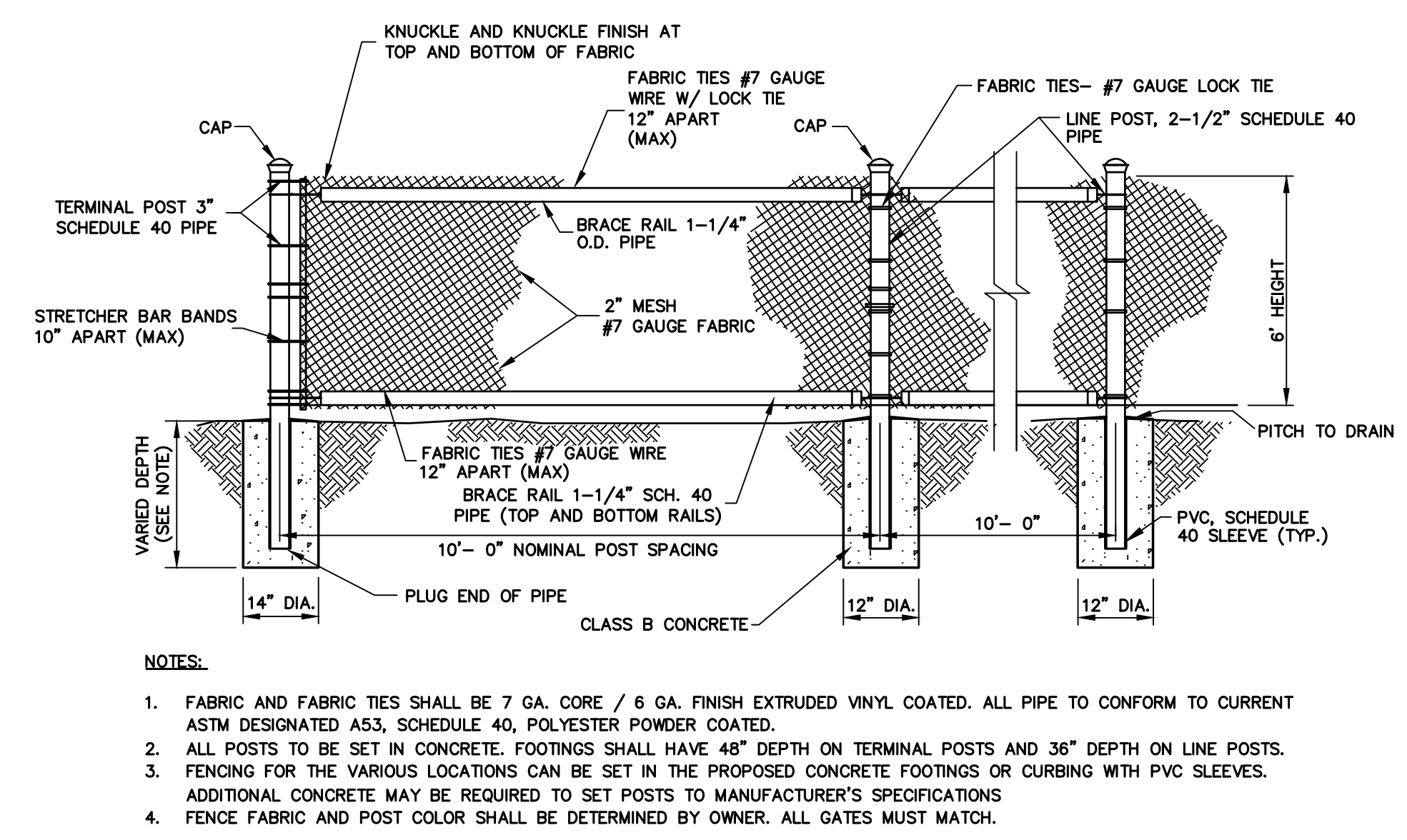
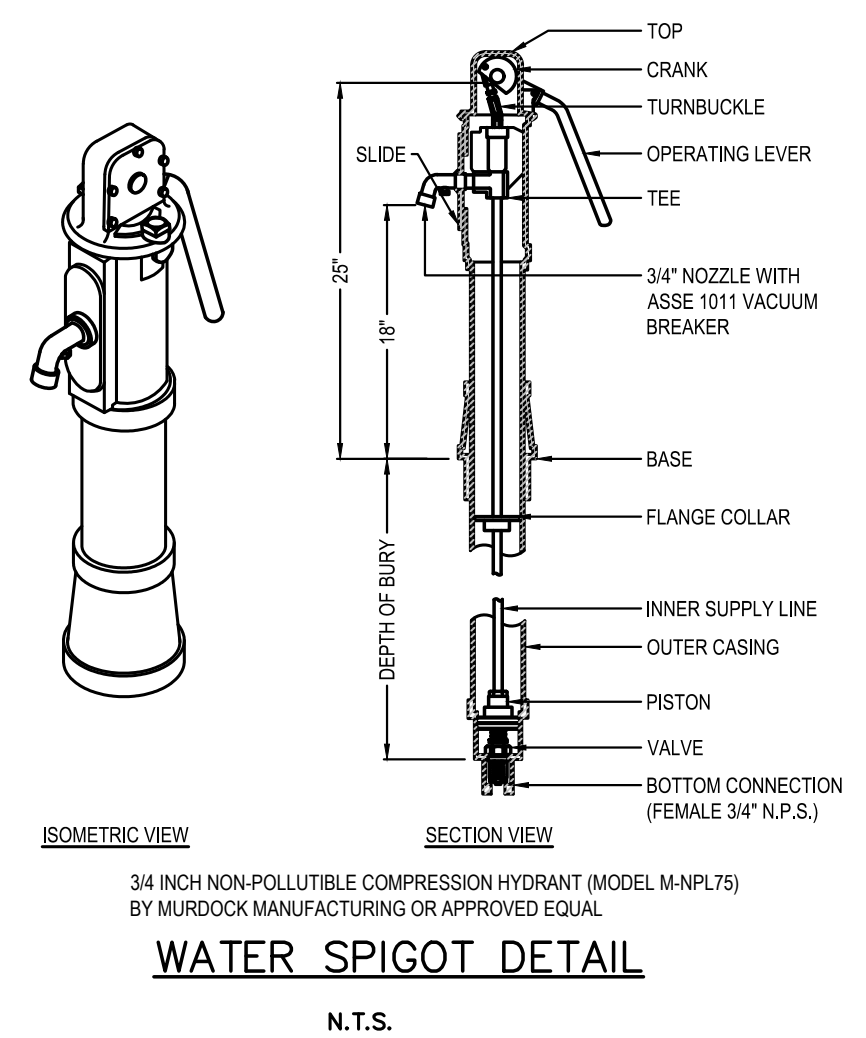
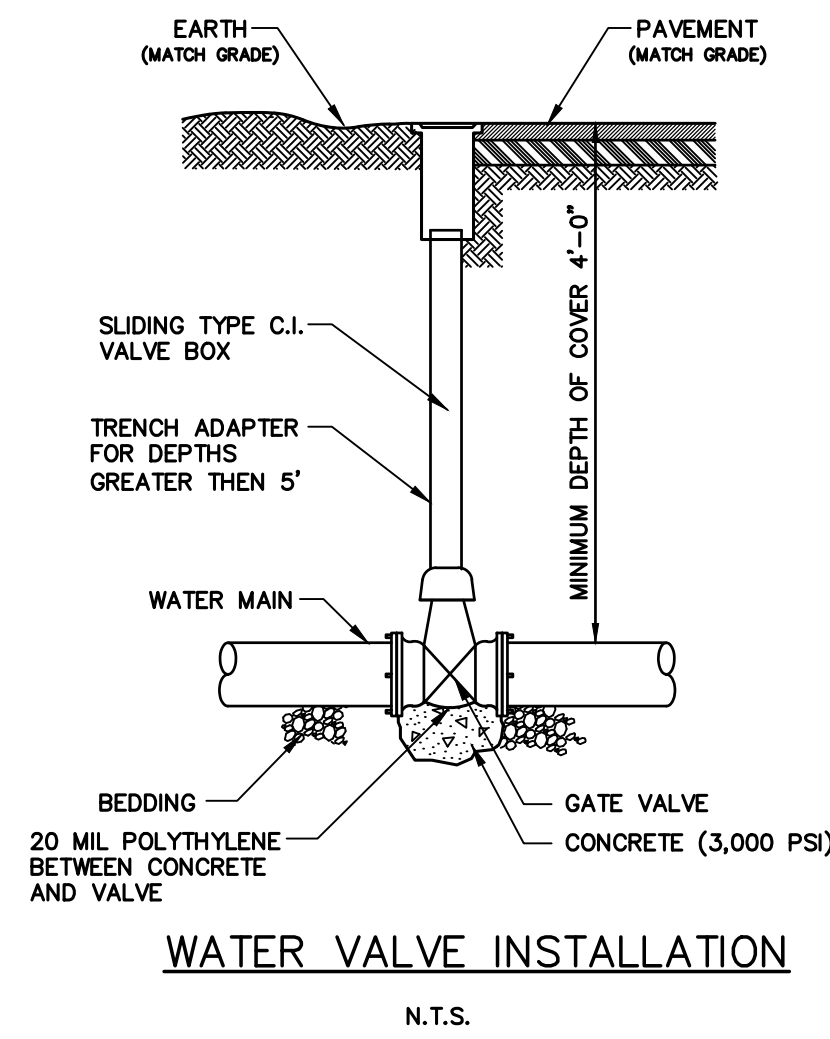






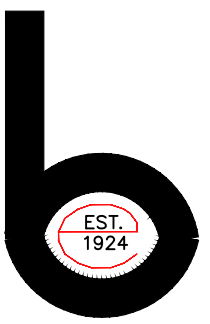






NO.	DATE	DESCRIPTION	SURVEYED BY	DRAWN BY	DESIGNED BY	CHECKED BY
1	4/14/22	REVISED FOR BID		SJ	SJ	FJR

PLOT BY: SELWYN JOY PLOT DATE: 4/14/2022



**BOSWELL ENGINEERING**

ENGINEERS — SURVEYORS — PLANNERS — SCIENTISTS

330 PHILLIPS AVENUE, SOUTH HACKENSACK, N.J. 07606

TEL: (201) 641-0770 • FAX: (201) 641-1831

N.J. CERTIFICATE OF AUTHORIZATION No. 246A27958000

KEVIN J. BOSWELL

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PROFESSIONAL ENGINEER N.J. LIC. 32943

JOSEPH A. POMANTE

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PROFESSIONAL ENGINEER N.J. LIC. 43137

FARM ROAD PARK  
BLOCK 203 LOTS 41, 42, & 43  
DETAIL SHEET — 4  
TOWN OF SECAUCUS

HUDSON COUNTY NEW JERSEY

SURVEYED BY: —	DESIGNED BY: S.J.	SCALE: N.T.S.	JOB NO. SEC-155	DATE: 3/07/22
DRAWN BY: S.J.	CHECKED BY: F.J.R.			

CADD FILE: SEC-155-DS.DWG SHEET 13 OF 13